ORDER NO. KM48804682S1
F1

Service Manual

Supplement

Telephone Equipment

KX-T1415D-A, KX-T1422
KX-T1426, KX-T2422
(For U.S.A.)

KX-T1415D, KX-T1422
(For Canada)

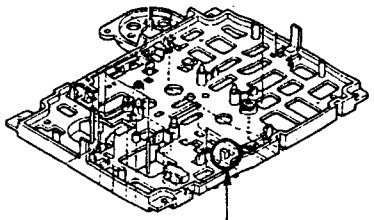
1. Please use this manual together with the service manual for model No. KX-T1415D-A, order No. KM48605329C1 (for U.S.A.).
2. Please use this manual together with the service manual for model No. KX-T1415D, order No. KM48608376A1 (for Canada).
3. Please use this manual together with the service manual for model No. KX-T1422, order No. KM48603314C1 (for U.S.A.).
4. Please use this manual together with the service manual for model No. KX-T1422, order No. KM48608375A1 (for Canada).
5. Please use this manual together with the service manual for model No. KX-T1426, order No. KM48603320C1 (for U.S.A.).
6. Please use this manual together with the service manual for model No. KX-T2422, order No. KM48605327C1 (for U.S.A.).

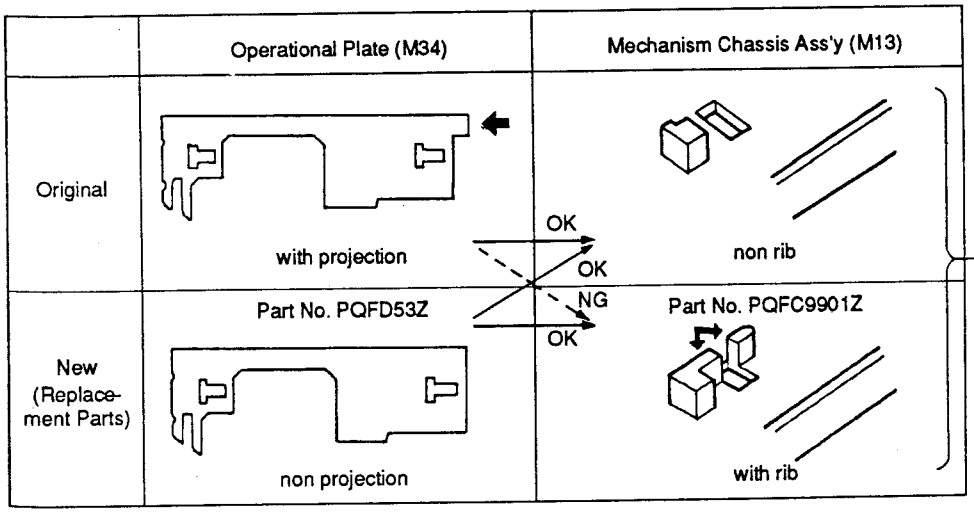
CHANGES

Subject: Change of deck parts (U.S.A. only)

1. There are 2 types of operational plate (M34) and mechanism chassis ass'y (M13) as below table.
2. The arrows (→) are interchangeable combination.
3. If you have the original M34, please use it with original mechanism chassis M13.
4. The replacement Part used is a new types only.

M13 Top View





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Panasonic

MC-Service

■ REPLACEMENT PARTS LIST (For U.S.A. and Canada)

Interchangeability Code			See the Notes column on the following part number list.
	Parts	Set Production	
A	Original → Early New → Late		Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
B	Original → Early New → Late		Original parts may be used in early production sets only. New parts may be used in early or production sets. Use original parts where possible, then stock new parts.
C	Original → Early New → Late		New parts only may be used in early or late production sets. Stock new parts.
D	Original → Early New → Late		Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E Addition	F Deletion	G Correction	H Other

Parts Number

Ref. No.	Parts Name & Description	Old Part No.	New Part No.	Pcs/Set	Note
M7	Play Arm Ass'y (KX-T1422 for U.S.A. and Canada, KX-T1426, KX-T2422)	PQFR9903Z	**PQFR9903Y**	1	C
M9	F/R Lever Ass'y (KX-T1422 for U.S.A. and Canada, KX-T1426, KX-T2422)	PQFY9902Z	**PQFY9902Y**	1	C
IC2, 3	IC (KX-T1415D-A, KX-T1415D for Canada)	PQVITC4066BC	**PQVIPD4066BC**	2	G
LED3, 102	LED (KX-T1422 for U.S.A. and Canada, KX-T1426)	LN324GPH	**LN324GP**	1	A
S1	Switch, ~~On/Off~~ CPC (KX-T1415D-A)	PQSS2A06Z	**PQSS2B10Z**	1	G
S1	Switch, ~~On/Off~~ CPC (KX-T1415D for Canada)	PQSS2A26Z	**PQSS2B10Z**	1	G
S4	Switch, Power (KX-T1415D-A, KX-T1415D for Canada)	PQSS2B10Z	**PQSS2A06Z**	1	G
K5	Handset Holder (KX-T2422)	PQBKE20Z4	**PQKE20Z4**	1	G
K6	Stop Ring (KX-T2422)	PQBNW262Z	**PQNW262Z**	1	G
K12	Spring, Cassette Lid (KX-T1426)	PQUS97Z	**PQUS97Y**	1	A
K15	Button, Playback/Pause (KX-T2422)	PQBC108Y	**PQBC108X**	1	A
A1	AC Adaptor (KX-T1422 for U.S.A., KX-T1426)	KX-A07L	**KX-A07D**	1 ⚠	B
A3	AC Adaptor (KX-T2422)	KX-A70L	**KX-A07D**	1 ⚠	G
Y1	Instruction Book (KX-T1422 for U.S.A.)	PQQX5260X	**PQZTT1422M**	1	B

ORDER NO. KM48603320C1
F1

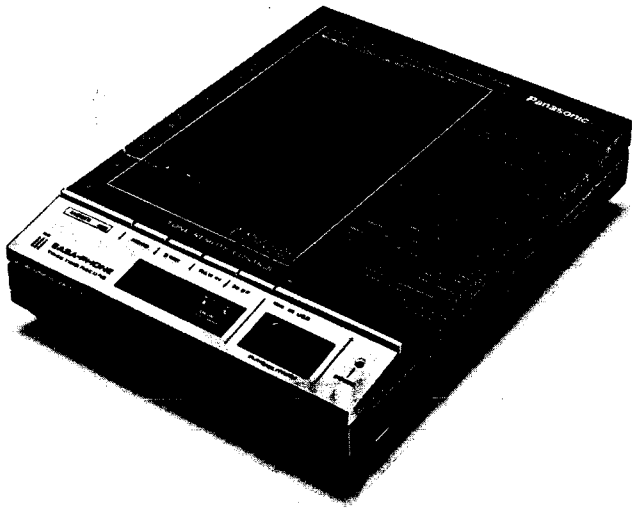
Service Manual

Telephone Equipment

AUTO-LOGIC

EASA-PHONE®
AUTOMATIC TELEPHONE
ANSWERING SYSTEM

KX-T1426



■ SPECIFICATIONS

Power Source:	AC adaptor (13 V, DC), Ni-Cd batteries (4.8 V, DC) for battery backup
Outgoing Message (OGM):	30-second endless loop cassette (Variable, up to 30 seconds)
Incoming Message (ICM):	C-60 regular cassette; selectable recording times (1 MIN/VOX)
Tape Deck:	Logic control dual cassette system
Ring Control:	2/4/Automatic (Toll-Saver)
Call Counter:	2-digit LCD up to 59 calls
Voice-Synthesis:	Clock time, Message recording time, Number of calls
Power Output:	350 mW max. across the monitor speaker
Monitor Speaker:	2.6" PM dynamic (8 ohm)
Microphone:	Condenser microphone
Connection:	2 built-in modular jacks, DC-IN jack
Ringer Equivalence:	0.4B
Dimensions (H×W×D):	$2\frac{7}{16}$"×$7\frac{15}{32}$"×$9\frac{19}{32}$" (62 mm×190 mm×244 mm)
Weight:	2.6 lbs. (1.2 kg) including cassette tapes

Design and specifications are subject to change without notice.

Panasonic

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Victoria Industrial Park
Carolina, Puerto Rico 00630

When you mention the serial number, write down the 11 digits. The serial number may be found on the label affixed to the bottom of the unit.

LOCATION OF CONTROLS

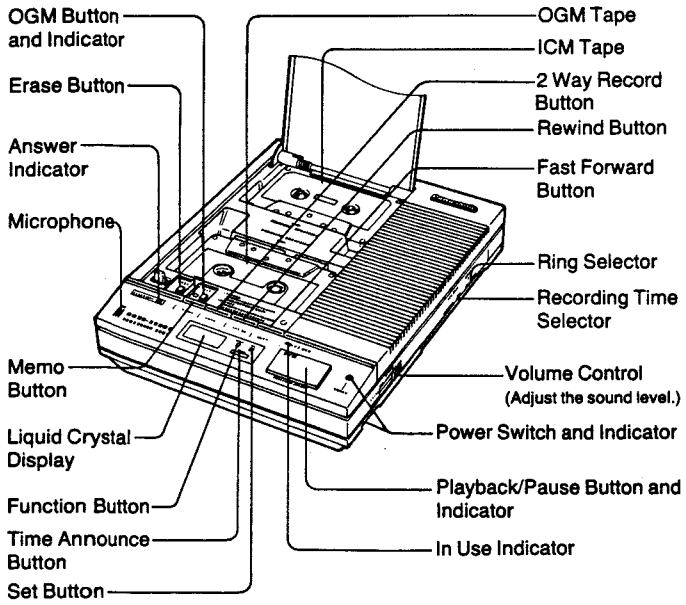


Fig. 1

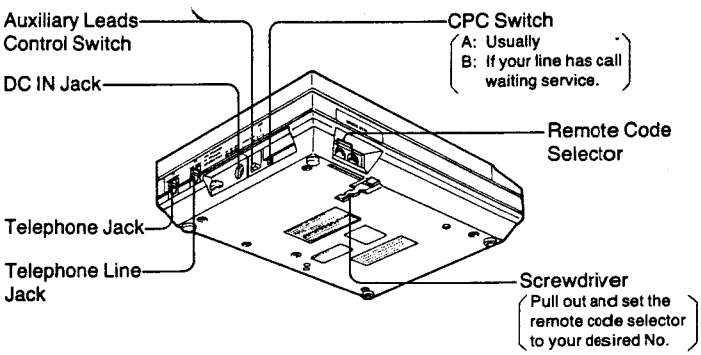

Auxiliary Leads Control Switch
DC IN Jack
Telephone Jack
Telephone Line Jack
CPC Switch
A: Usually
B: If your line has call waiting service.
Remote Code Selector
Screwdriver
Pull out and set the remote code selector to your desired No.

Fig. 2

FEATURES

- **Auto-Logic Operation**
  automatically rewinds, plays messages, stops at the last message and resets itself at the touch of one button.
- **Tone Remote Control System**
  for playback, reset, back space, skip forward, OGM record, marker message, memory playback remote turn on and room monitoring
- **Selectable Recording Times**
  of 1 MIN/VOX/ANNOUNCE with voice-activation
- **Liquid Crystal Display**
  for time and number of calls received/recorded
- **Voice-Synthesized Announcement**
  of clock time, message recording time and number of calls
- **2-Way Recording**
  to store phone conversations for later reference
- **Automatic Disconnect**
  stops the unit from answering and automatically switches to the telephone mode when an extension handset is lifted.

OPERATIONS

Recording Outgoing Message

1 Push OGM until the OGM indicator lights.

2 Speak clearly and loudly into the MIC.

- While recording, do not pause for over 2 seconds.

3 When finished, Push OGM.

- Wait until the indicator stops flashing.

Confirming

4 Push OGM quickly.

- Adjust the volume control.
- Wait until the indicator stops flashing.

MC-Service

Prior to Leaving

1 Push ►/II PLAYBACK/PAUSE then

Push REW ◄◄ .

•Wait until the answer indicator lights.

■ When the telephone rings, the unit will play the OGM, then record the caller's message.

The Liquid Crystal Display will show the number of all the incoming messages.

After Returning Home

1 Push ►/II PLAYBACK/PAUSE

•The unit will rewind and play back, then stop after the last message.

■ **To rewind the tape**, push the rewind button.

■ **To fast forward the tape**, push the fast forward button.

■ **To stop the tape temporarily**, push the pause button. To restart, push it again.

•The unit will reset back to the answer mode after 8 seconds.

■ If you do not want to set the unit to the answer mode, push the power switch off.

How to Adjust the Time

PM 12 : 00
Hour Minute

1 FUNCTION •Hour mode flashes.

2 SET to adjust "Hour".

Push

3 FUNCTION •Minute mode flashes.

4 SET to adjust "Minute".

5 FUNCTION to complete adjustment.

•The unit will announce time.

To record a 2-way Conversation

1 Lift the and talk.

2 Push 2WAY until the In Use indicator lights.

3 When you finish, Push the 2WAY button again.

How to use the Message Memo

To record a message to be heard by someone using a remote.

1 Push MEMO until a beep sound is heard.

2 Speak into the MIC .

3 When you finish, Push the MEMO button again.

Quick Reference for Tone Remote Control

1 Dial the telephone number with a tone telephone only.

2 When the OGM starts,

Push your code No. firmly.

•The unit will announce the number of the recorded messages.

•The unit will rewind the ICM tape and play back.

•Back Space

Push 1 to rewind for about 1 second of play back.

•Fast Forward

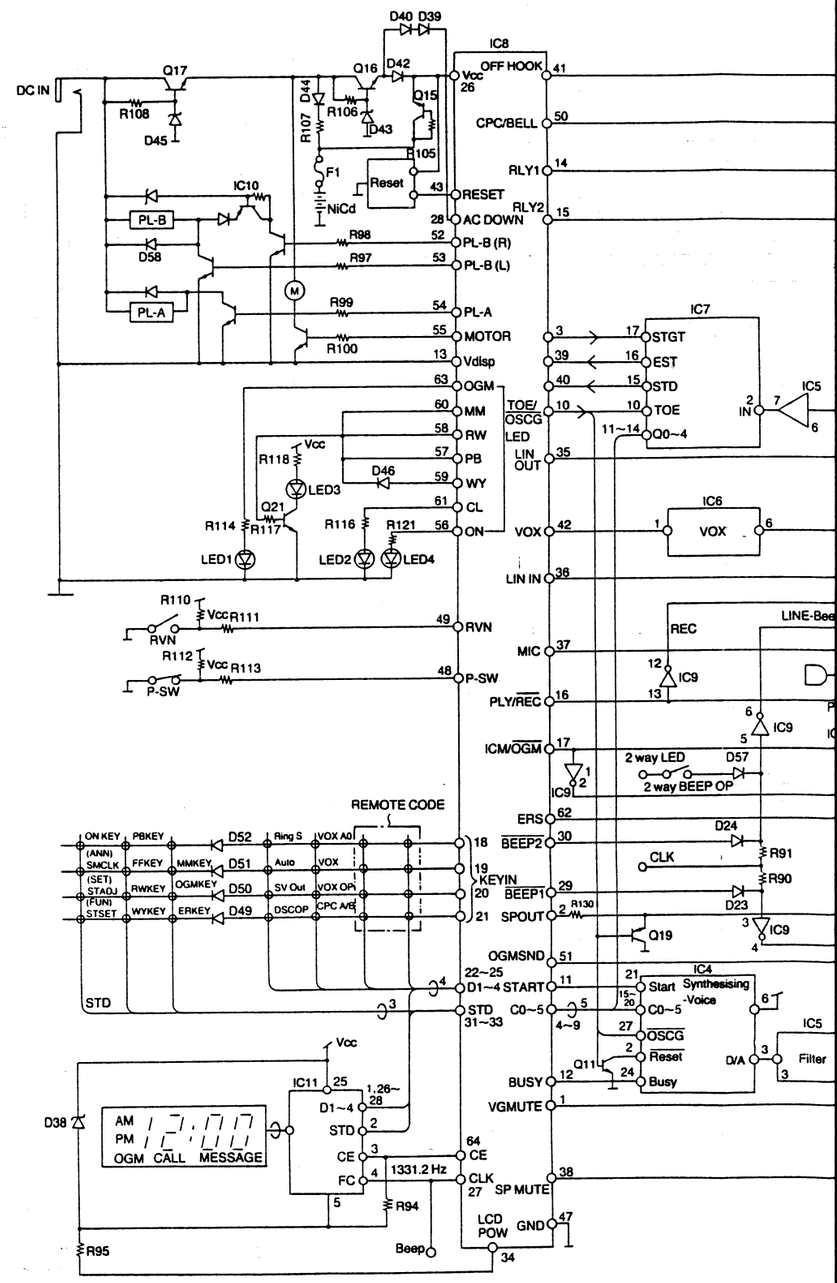
Push ABC 2 to fast forward for about 1 second.

•After the last message is played back, 3 beeps will be heard.

3 Hang up the .

•Next message will be recorded after the last message.

To record the ICM from beginning of the tape, push the DEF 3 button and hang up the telephone.



ior to Leaving

■ When the telephone rings, the unit will play the OGM, then record the caller's message.

The Liquid Crystal Display will show the number of all the incoming messages.

How to Adjust the Time

PM 12:00
Hour Minute

1 FUNCTION ☐ •Hour mode flashes.
2 SET ☐ to adjust "Hour".
3 FUNCTION ☐ •Minute mode flashes.
4 SET ☐ to adjust "Minute".
5 FUNCTION ☐ to complete adjustment.
•The unit will announce time.

Push

Quick Reference for Tone Remote Control

1 Dial the telephone number with a tone telephone only.
2 When the OGM starts,
Push your code No. firmly.
•The unit will announce the number of the recorded messages.
•The unit will rewind the ICM tape and play back.

•Back Space
Push [1] to rewind for about 1 second of play back.

•Fast Forward
Push [ABC 2] to fast forward for about 1 second.

•After the last message is played back, 3 beeps will be heard.

3 Hang up the ☎.
•Next message will be recorded after the last message.

To record the ICM from beginning of the tape, push the [DEF 3] button and hang up the telephone.

BLOCK DIAGRAM

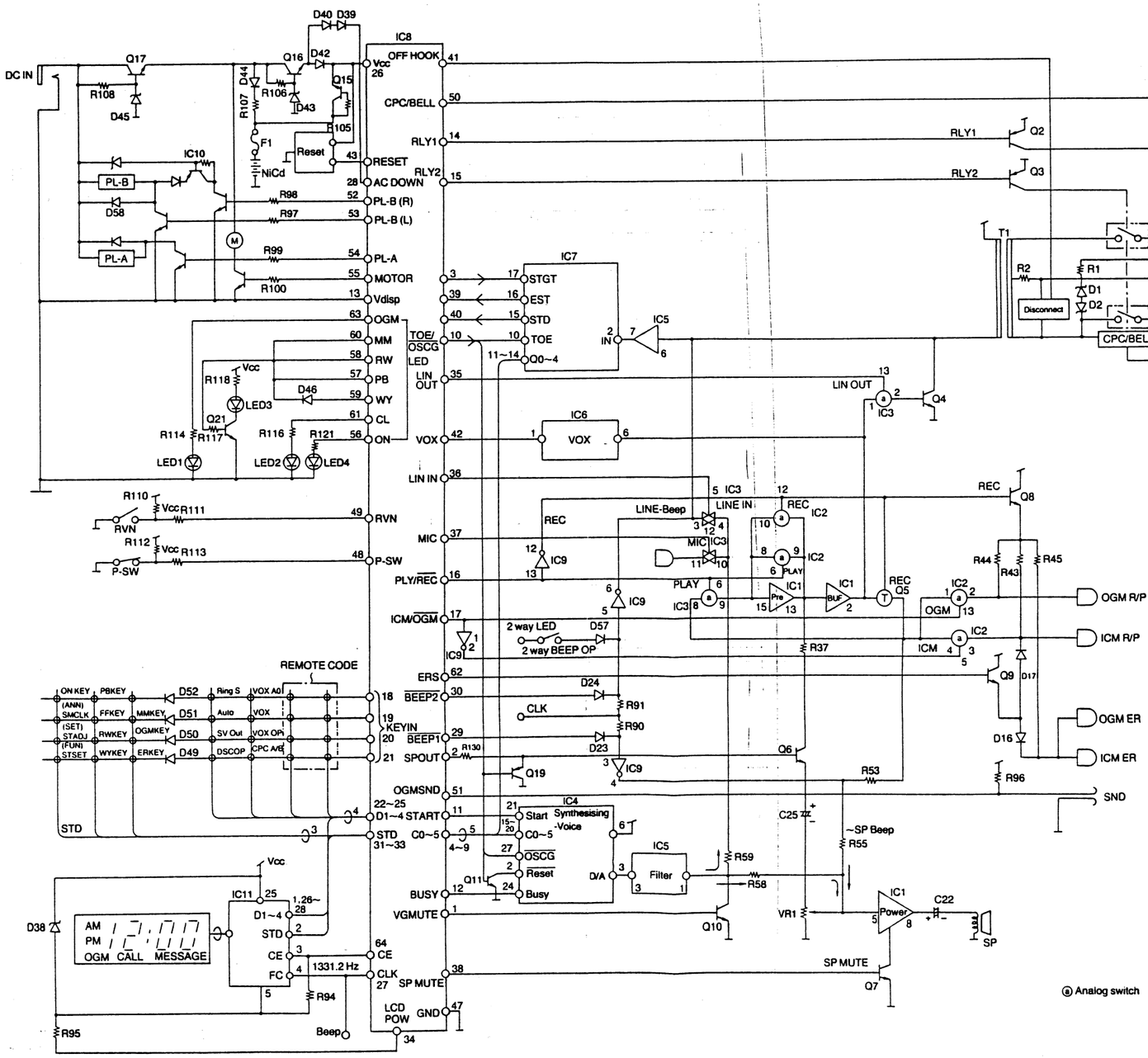
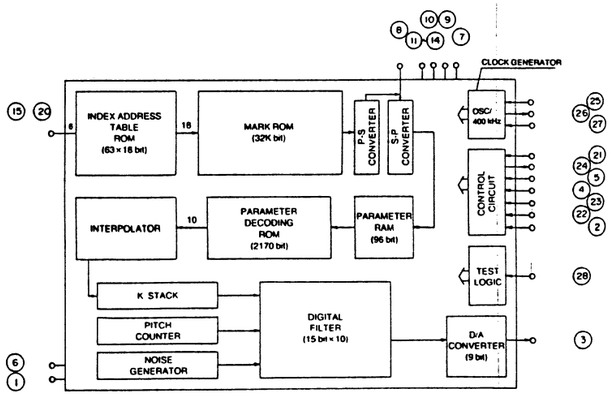


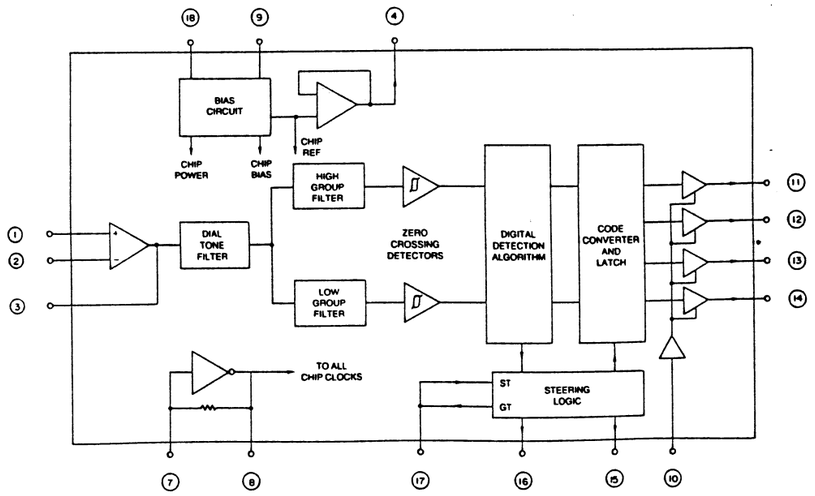
Fig. 3

IC BLOCK DIAGRAM

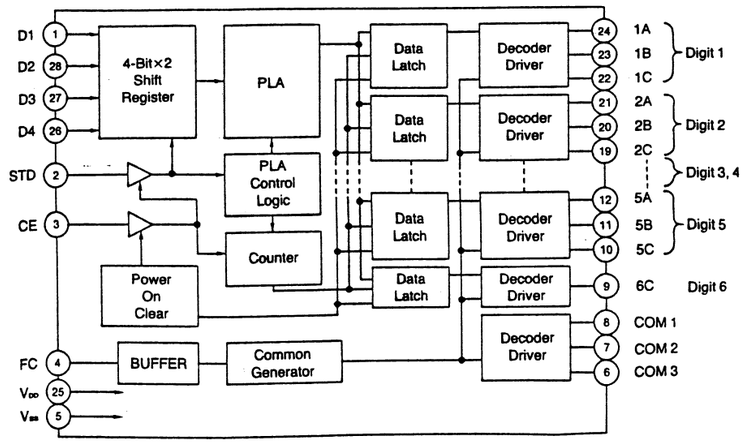
IC4 PQVIVGH6034A



IC7 PQVIMT8870BC

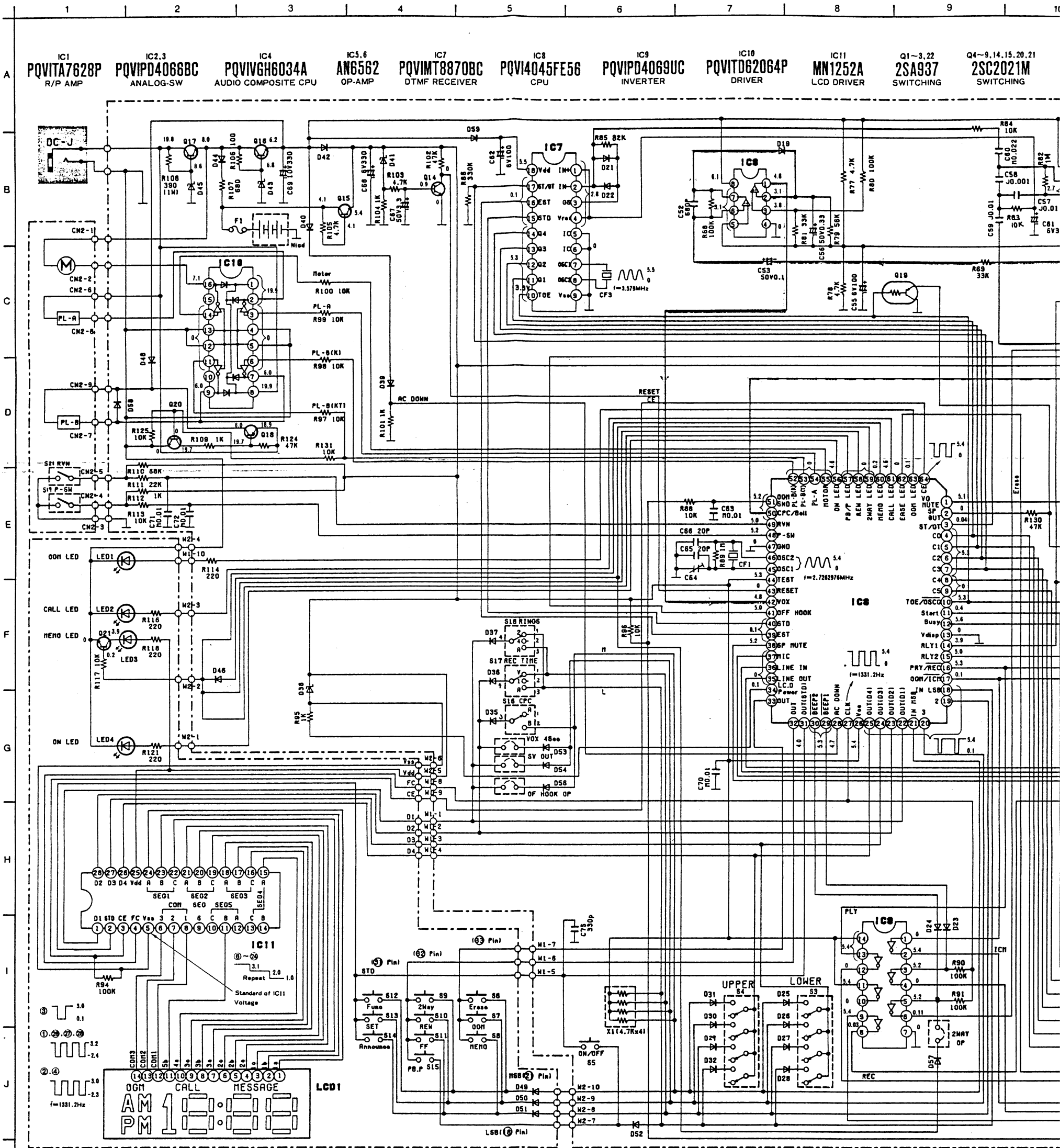


IC11 MN1252A



SCHEMATIC DIAGRAM

IC1	IC2,3	IC4	IC5,6	IC7	IC8	IC9	IC10	IC11	Q1~3,22	Q4~9,14,15,20,21
PQVITA7628P	PQVIPD4066BC	PQVIVGH6034A	AN6562	PQVIMT8870BC	PQVI4045FE56	PQVIPD4069UC	PQVITD62064P	MN1252A	2SA937	2SC2021M
R/P AMP	ANALOG-SW	AUDIO COMPOSITE CPU	OP-AMP	DTMF RECEIVER	CPU	INVERTER	DRIVER	LCD DRIVER	SWITCHING	SWITCHING



IC1, 10	IC2, 3, 9	IC4	IC5, 6	IC7	IC8	IC11	Q1~5, 7, 8, 10, 11, 18, 19, 21, 22	Q6, 9, 14, 15, 20

Notes:

1. S1: Auxiliary Leads Control Switch in "OUT" position.
2. S3, 4: Remote Code Selector Switch.
3. S5: Power Switch in "OFF" position.
4. S6: Erase Switch.
5. S7: OGM Switch.
6. S8: Memo Switch.
7. S9: 2 Way Record Switch.
8. S10: Rewind Switch.
9. S11: Fast Forward Switch.
10. S12: Function Switch.
11. S13: Set Switch.
12. S14: Time Announce Switch.
13. S15: Playback/Pause Switch.
14. S16: CPC Switch in "A" position.
15. S17: Recording Time Selector Switch in "VOX" position.
16. S18: Ring Selector Switch in "2" position.
17. S19: Head Position Switch.
18. S20: Sensing Switch.
19. S21: Reed Switch.
20. DC voltage measurements are taken with electronic voltmeter from negative voltage line.
    "ANSWER" standby position.
21. **Important safety notice.**
    The shaded area on this schematic dia
    special features important for protection fron
    shock hazards.
    When servicing it is essential that only manu
    parts be used for the critical components in t
    the schematic.

GRAM

Q4~9,14,15,20,21 **2SC2021M** SWITCHING

Q10 **2SD1469** SWITCHING

Q11 **DTC144WA** SWITCHING

Q16 **2SC2235** REGULATOR

Q17 **2SD1266** REGULATOR

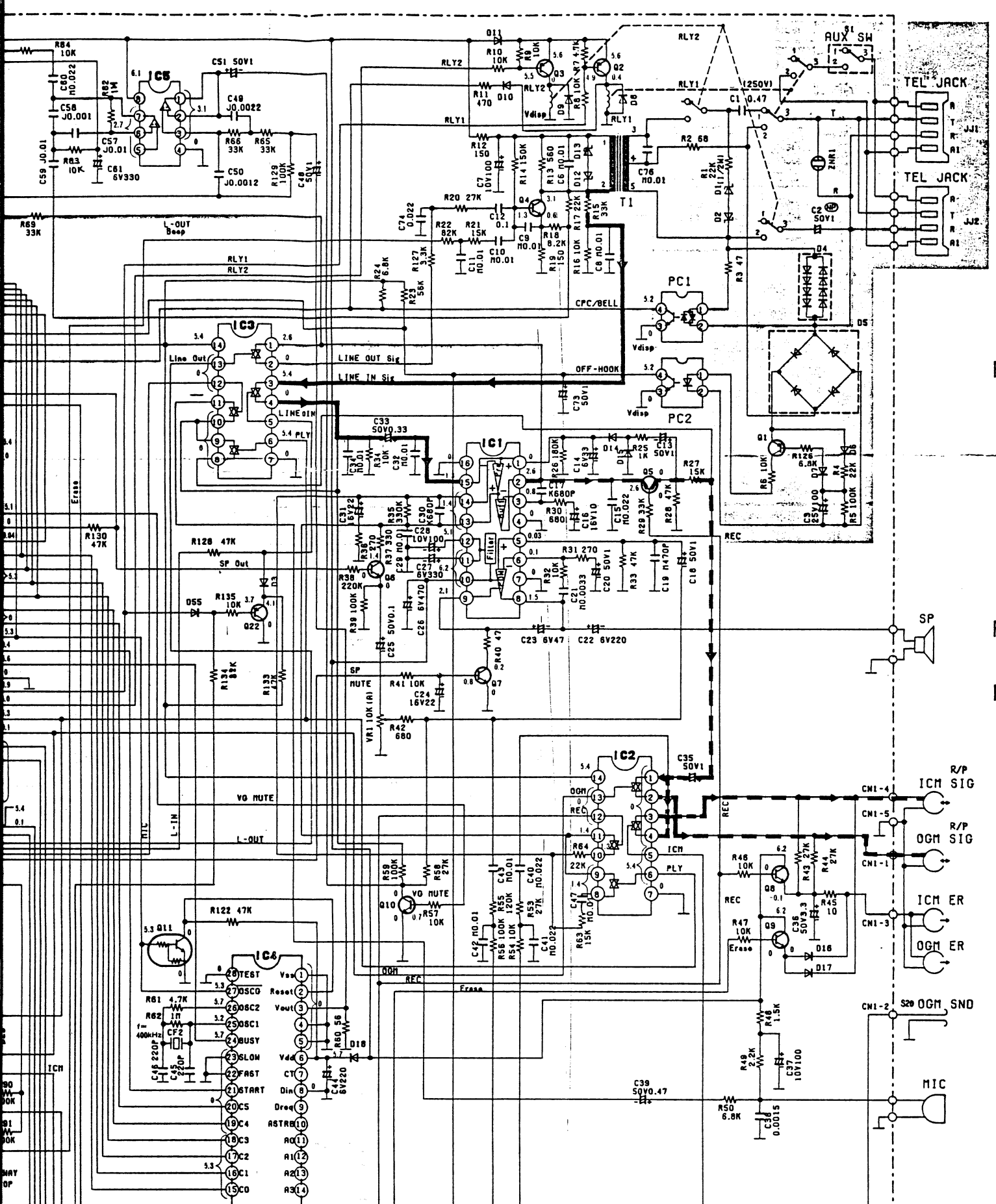
Q18 **2SB909M** SWITCHING

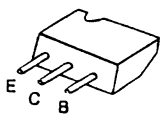
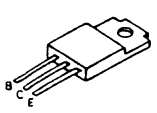
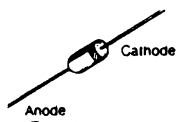
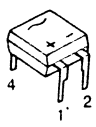
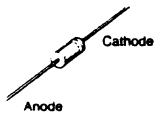
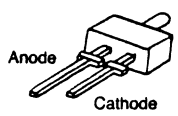
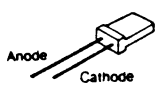
Q19 **DTA114TA** SWITCHING

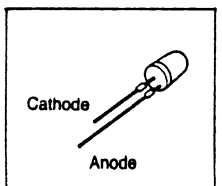
D1,2 **PQVDMTZ5R6** LIMITER

D3,6~11,14~19,21~32,35~37,40,42,44,46,49~59 **1SS131** SWITCHING

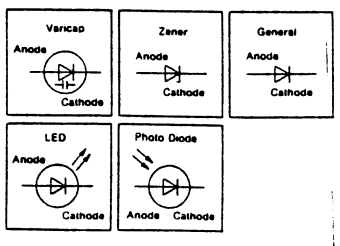
D4 **PQVDVR61B** PROTECTOR



 Q6, 9, 14, 15, 20	Q16	 Q17	 D1~3, 6~13, 14~19, 21~32, 35~46, 49~59	 D5	 D48	 LED1	 LED2, 3



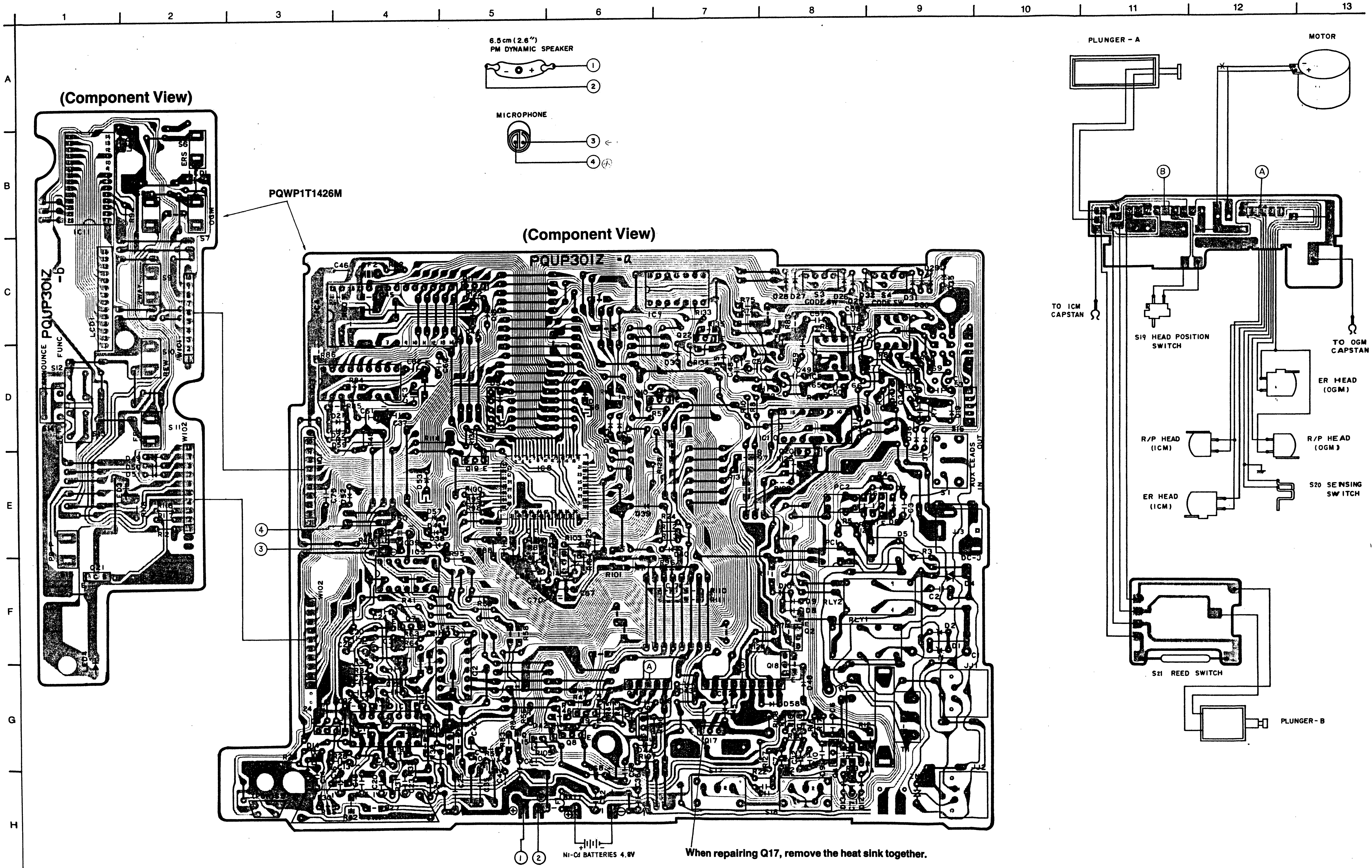
tice.
n this schematic diagram incorporates
rtant for protection from fire and electrical
ssential that only manufacturer's specified
critical components in the shaded areas of



- Line In Signal
- ICM Record Signal, OGM Record Signal
- DTMF Detect Signal
- Bell Detect Signal
- Line Out Signal
- Vox Detect Signal

This schematic diagram may be modified at any time with the development of new technology.

CIRCUIT BOARD WIRING VIEW



1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H
(Component View)
PQWP1T1426M
PQUP301Z -b
(Component View)
PQUP301Z -a
6.5cm (2.6")
PM DYNAMIC SPEAKER
MICROPHONE
PLUNGER - A
MOTOR
TO ICM CAPSTAN
S19 HEAD POSITION SWITCH
TO OGM CAPSTAN
ER HEAD (OGM)
R/P HEAD (ICM)
R/P HEAD (OGM)
ER HEAD (ICM)
S20 SENSING SWITCH
S21 REED SWITCH
PLUNGER - B
AUX LEADS OUT IN
DC-J
Ni-Cd BATTERIES 4.8V
When repairing Q17, remove the heat sink together.

Note: The P.C. Board assembly (PQWP1T1426M) is not treated as a replacement part.

MC-Service

CPU DATA

Part No.: PQVI4045FE56
Program ROM: 4K byte
V_{CC}: 5±0.5 V

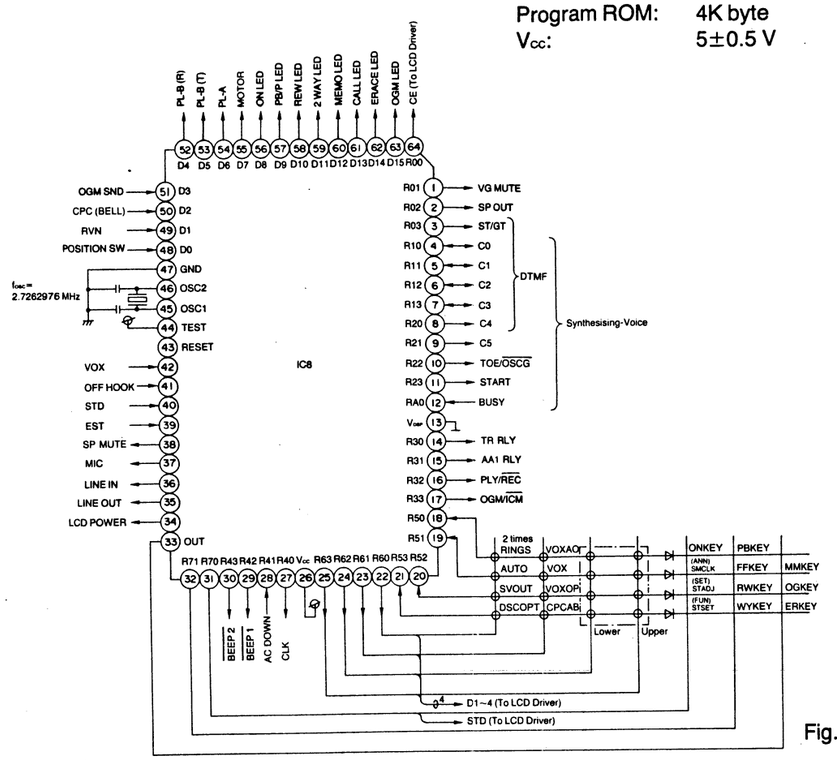


Fig. 4

Pin No.	Function	High	Low
1	Synthesising-Voice MUTE	Mute	Voice Output
2	SP/AMP SW	Voice Output	OFF
3	for DTMF	Output Starting	
4	DTMF/Synthesising-Voice Data		
5			
6			
7			
8	Synthesising-Voice Data		
9			
10	DTMF/Synthesising-Voice Bus Select	DTMF	Synthesising-Voice
11	Synthesising-Voice	Starting	
12			Busy
13	Vdisp		
14	Circuit Relay	Brake	Make
15			
16	Recording Select	Play	Record
17	ICM/OGM Select	OGM	ICM
18	Key Input	Disable	Enable
19			
20			
21			
22	Key Strobe/D1		
23	Key Strobe/D2		
24	Key Strobe/D3		
25	Key Strobe/D4		
26	Vcc		
27	Clock for LCD/Beep Oscillate		
28	Power-down	Power-on	Power-down
29	Beep Control	Mute	Input to Circuit
30			Output to Head, SP
31	Strobe/Strobe for LCD		ON
32			

Pin No.	Function	High	Low
33	Strobe		ON
34	LCD Driver Power	OFF	
35	Amp. Output/Line	Voice Output	Mute
36	Amp. Input/Line		
37	Amp. Input/Mic		
38	Speaker Mute	Mute	Voice Output
39	for DTMF	Enable to DTMF	Disable to DTMF
40			
41	Auto Disconnect	ON-Hook	OFF-Hook
42	Vox	Enable to Voice	Disable to Voice
43	Reset	Reset	Active
44	Test	Active	Test
45	System Clock Oscillator 1		
46	System Clock Oscillator 2		
47	Ground		
48	Position Switch	Stop	Active
49	Reed Switch		
50	CPC/Bell	Disable	Enable
51	OGM Sensing Switch		
52	Plunger-B Latch	ON	OFF
53	Plunger-B Trigger		
54	Plunger-A		
55	Motor		
56	Power LED		
57	Playback LED		
58	Rewind LED		
59	2 way LED		
60	Message Memo LED		
61	Call LED		
62	Erase LED		
63	OGM LED		
64	LCD CE		

DISASSEMBLY INSTRUCTIONS

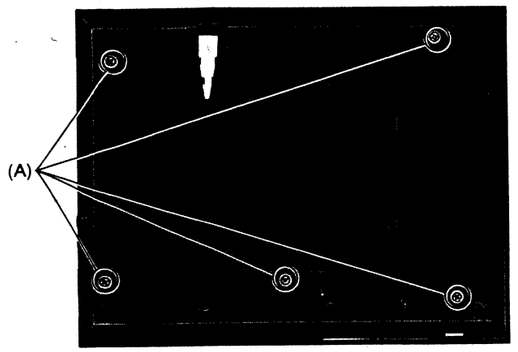


Fig. 5

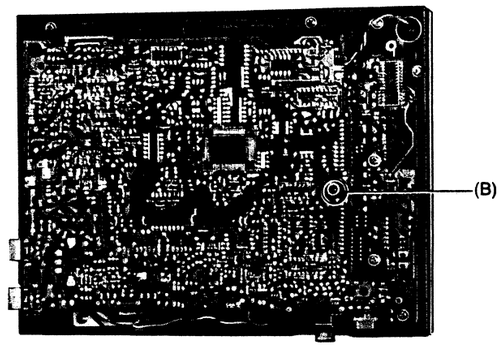


Fig. 6

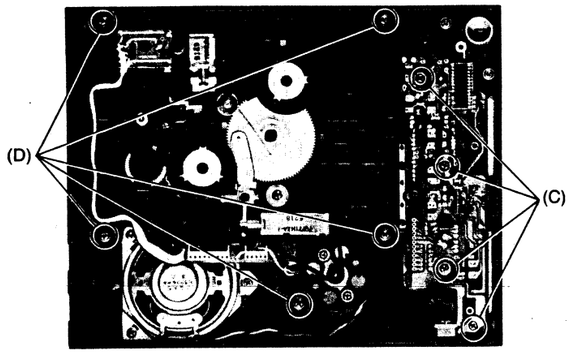


Fig. 7

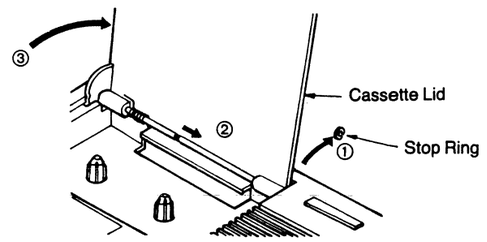


Fig. 8

Procedure	To remove—.	Remove—.	Shown in Fig.—.
1	Lower Cabinet	Screws (3×16) ..... (A)×5	5
2	Printed Circuit Board	Screw (3×10) ..... (B)×1	6
3		Screws (3×10) ..... (C)×4	7
4	Cassette Deck	Red Screws (3×10) ..... (D)×5	7
5	Cassette Lid	*	8

*When removing the cassette lid, remove as shown in Fig. 8.

HOW TO REMOVE FLEXIBLE P.C. BOARD

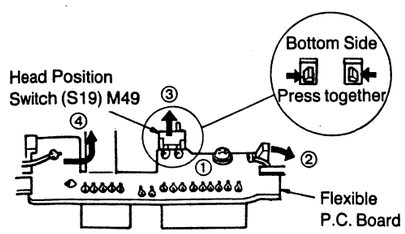
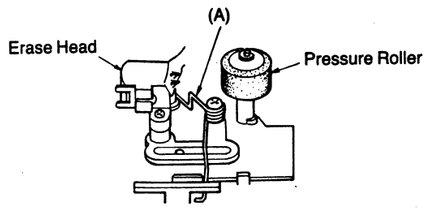
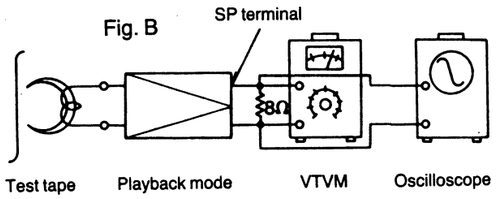
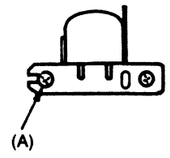


Fig. 9

1. Remove hold down screw.
2. Gently press tab ④ in direction shown to raise board slightly.
3. Press tabs together of Head position switch (S19) to free ass'y from chassis (tabs located on bottom).
4. Slide P.C. Board in the direction of the arrow.

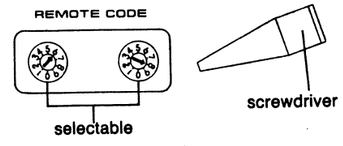
MEASUREMENT AND ADJUSTMENT METHOD

Notes: 1. Make sure the heads are clean.
2. Make sure the capstan and pressure roller are clean.
3. Room temperature for measuring and adjusting: 20±5°C (68±9°F)
4. Test equipments are not treated as replacement parts.

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Pressure of pressure roller **Equipment:**	1. Use tension gauge (SRK DM-300). 2. Place unit into playback mode. 3. Read pressure indicated on gauge immediately when pointer stops. **Value: more than 80 gcm** Adjustment method: Adjust by bending the (A) part of the pressure roller spring (See Fig. A).  Fig. A	•Playback mode •Place unit in playback mode with tape
Head azimuth adjustment	**A. Record/playback head for incoming message cassette** 1. Playback test tape (QZZCWAT 3 kHz) 2. Adjust screw (A) shown in fig. C for maximum output at SP terminal. (Test equipment connection is shown below.) Fig. B  **B. Record/Playback head for outgoing message cassette** 1. Playback test tape (PQJN17Z 3 kHz) 2. Adjust screw (A) shown in fig. C for maximum output at SP terminal. (Test equipment connection is shown in fig. B)  Fig. C	•Record/playback head for incoming message and outgoing message.

HOW TO SET THE REMOTE CODE

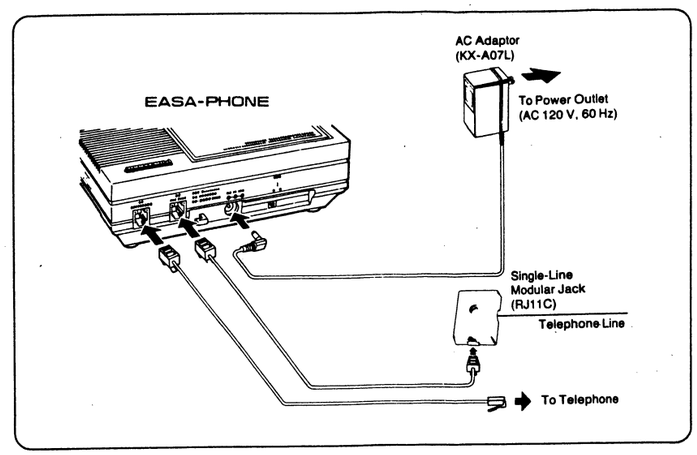
Example: 68



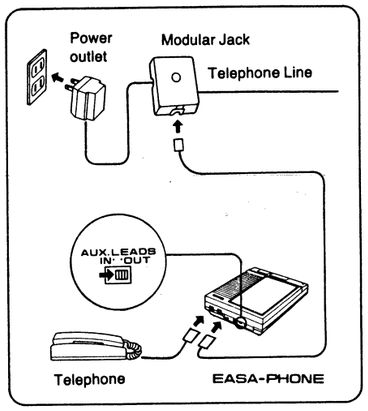
•Do not use No. 7 as code No.

Fig. 10

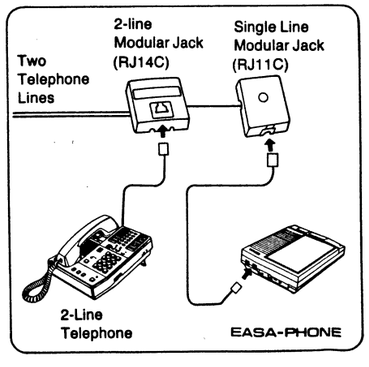
CONNECTION TO A TELEPHONE LINE



•If your telephone jack has an AC adaptor as shown. Set the Auxiliary Leads Control Switch to "OUT".



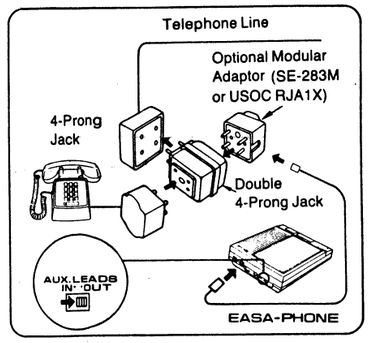
•Request the telephone company to install a USOC RJ11C connection to one of the two lines. Set the Auxiliary Leads Control Switch to "OUT".



■ This unit may not be connected to a coin operated line. If you are on a party line, check with your local telephone company.

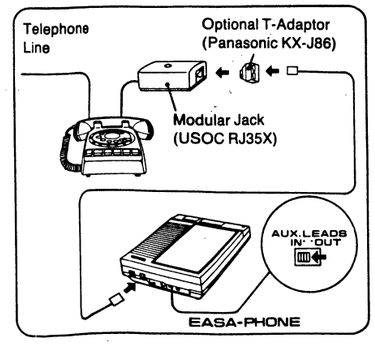
4-Prong Plug and Jack

•If your telephone connection is using a 4-prong jack, do as follows:



Multi-Line Key Telephone

The RJ35X connection allows access to all lines of a multi-line telephone. You must depress the line selector button on the telephone corresponding to the particular telephone line you want the unit to answer. Set the Auxiliary Leads Control Switch to "IN".



ADJUSTMENT

- Perform the following adjustment after replacing IC8, C64 and the LCD.

1. Connect the AC adaptor to the unit.
2. Connect Frequency Counter.
   ⊕ Side to ㉗ pin of IC8.
   ⊖ Side to ㊼ pin of IC8.
3. Adjust C64 of the unit for a reading on the frequency counter as shown.

Room Temperature	Value ($\times 10^{-1}$ m sec)
10°C~35°C	7.51200~7.51204

Note:
In case the unit is carried from an extremely cold or heated environment, wait for the unit to adapt to the present room temperature, and measure the value.

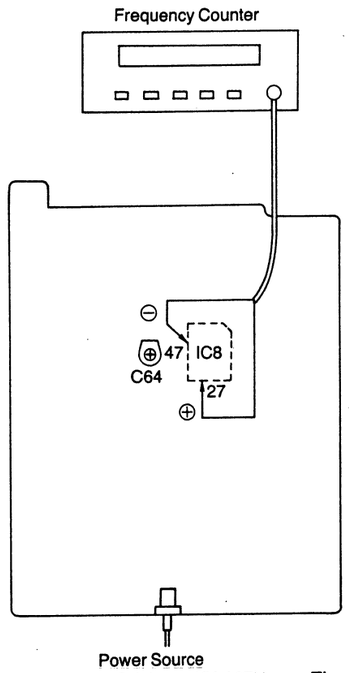


Fig. 11

PACKING MATERIALS

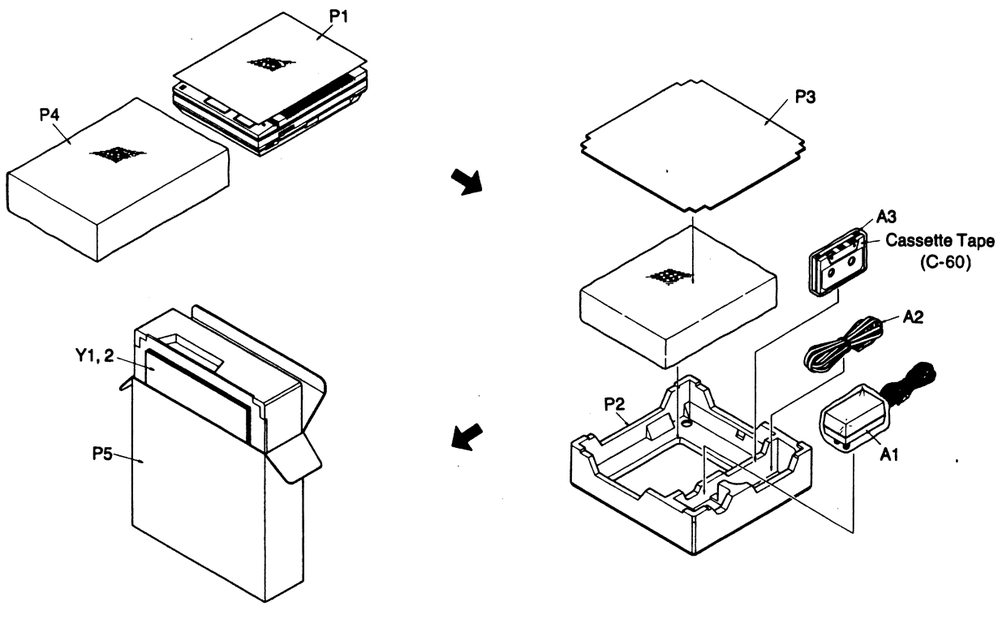


Fig. 12

CABINET AND ELECTRICAL PARTS

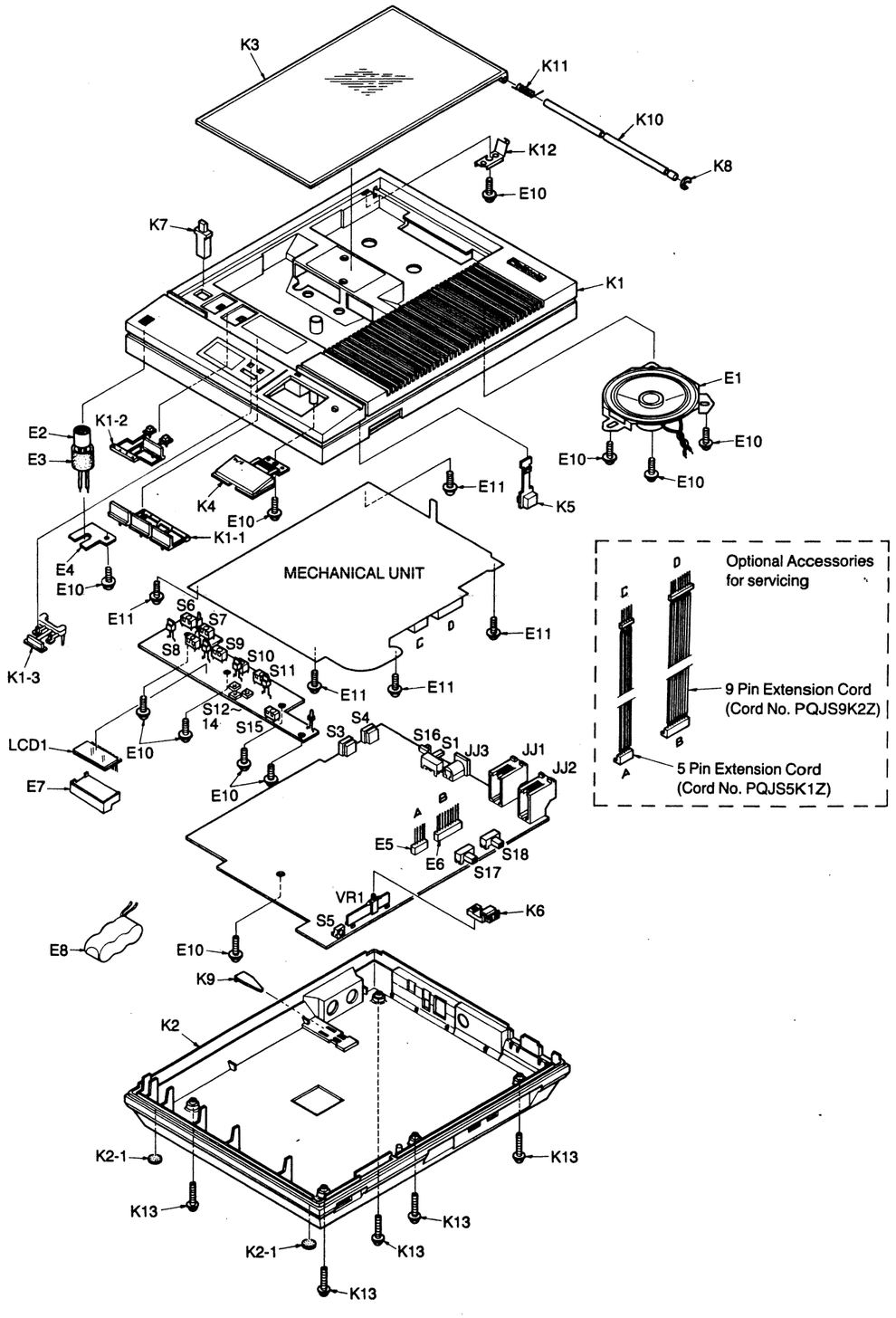


Fig. 13

EXPLODED VIEW (DECK)

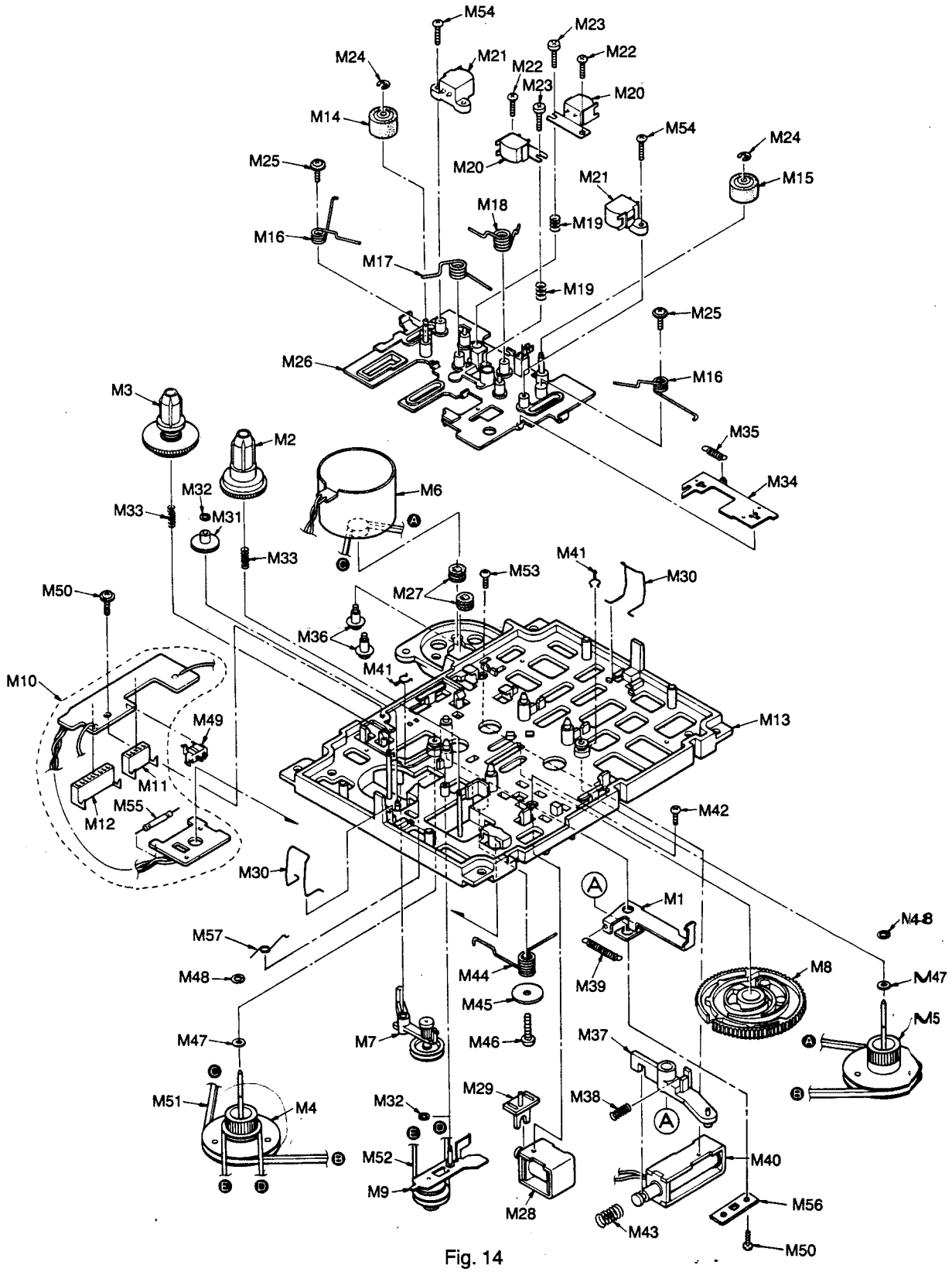


Fig. 14

Specifications

Playback torque	35~60 g • cm
Fast Forward torque	90~150 g • cm
Rewind torque	90~150 g • cm

Note:
The Deck assembly is not treated as a replacement part.

■REPLACEMENT PARTS LIST

Notes: Model KX-T1426

1. Important safety notice.
   Components identified by the ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. The S mark indicates service standard parts and may differ from production parts.
3. RESISTORS & CAPACITORS
   Unless otherwise specified.
   All resistors are in OHMS(Ω) k=1000Ω,M=1000kΩ
   All capacitors are in MICRO FARADS(μF) P=μμF
   ※Type & Wattage of Resistor
   Type

ERC:Solid	ERX:Metal Film	ERDS,PQRD:Carbon
ERD:Carbon	ERG:Metal Oxide	PQRQ:Fusible Resistor
RRD:Chip	ERO:Metal Film	ERF:Cement Resistor

   Wattage

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W

   ※Type & Voltage of Capacitor
   Type

ECF:Semi-Conductor	ECCD,ECKD,PQCBC:Ceramic
ECQS:Styrol	ECQM,ECQV,ECQE:Polyester
PQCBX,ECUV:Chip	ECEA,ECSZ :Electrolytic
ECMS:Mica	ECQP :Polypropylene

   Voltage

ECQ Type	ECQG ECQV,Type	ECEA Type	Others	
1H: 50V	05: 50V	0F:3.15V	0J :6.3V	1V :35V
2A:100V	1:100V	1A:10V	1A : 10V	50,1H:50V
2E:250V	2:200V	1V:35V	1C : 16V	1J :63V
2H:500V		0J:6.3V	1E,25:25V	2A :100V

Ref.No.	Part No.	Part Name and Description	Pcs
	MECHANICAL PARTS		
M1	PQFY9901Z	Assistant Lever Ass'y	1
M2	PQFR9901Z	S Reel Table Ass'y	1
M3	PQFR9902Z	T Reel Table Ass'y	1
M4	PQFF9901Z	Flywheel Ass'y	1
M5	PQFF9902Z	〃	1
M6	PQFM9901Z	DC Motor Ass'y (with pulley)	1
M7	PQFR9903Z	Play Arm Ass'y	1
M8	PQFG9901Z	Cam Gear Ass'y	1
M9	PQFY9902Z	F/R Lever Ass'y	1
M10	PQFZ9901Z	Flexible P.C.Board	1
M11	PQJS5B1Z	Connector, 5P	1
M12	PQJS9B1Z	〃 , 9P	1
M13	PQFC9901Z	Mechanism Chassis Ass'y	1
M14	PQFI1003Z	Roller	1
M15	PQFI1004Y	〃	1
M16	PQFS61Z	Spring	2
M17	PQFS65Z	〃	1
M18	PQFS66Z	〃	1
M19	PQFS16Z	〃	2
M20	PQJH1E6Z	R/P Head	2
M21	PQJH6E4Z	Erase Head	2
M22	XTN2+8J	Screw, 2×8	2
M23	XSB2+10FN	〃 , 2×10	2
M24	XUC2FY	Stop Ring	2
M25	XTW26+6F	Screw, 2.6×6	2
M26	PQFD9901Z	Head Base Ass'y (with sensing switch S20)	1
M27	PQFI4Z	Rubber Parts, Motor	2
M28	PQFP115Z	Plunger-B	1
M29	PQFW19Z	Guide	1
M30	PQFS59Z	Spring	2
M31	PQFG32Z	Gear	1
M32	PQFN7Z	Washer	2
M33	PQFS53Z	Spring	2
M34	PQFD53Z	Operation Plate	1
M35	PQFS56Z	Spring	1
M36	PQHD4Z	Screw	2
M37	PQFY9903Z	Trigger Lever Ass'y	1
M38	PQFS57Z	Spring	1
M39	PQFS58Z	〃	1
M40	PQFP114Z	Plunger-A	1
M41	PQFE30Z	Terminal	2
M42	XYN26+C3.5	Screw, 2.6×3.5	1
M43	PQFS60Z	Spring	1
M44	PQFS62Z	〃	1
M45	XWG3F13	Washer	1
M46	XTN26+8J	Screw, 2.6×8	1
M47	PQFN12Z	Washer	2
M48	PQFN16Z	〃	2
M49	PQSH1A17Z	Head Position Switch(S19)	1
M50	XTW3+S10M	Screw, 3×10	2
M51	PQFB8Z	Bet(long)	1
M52	PQFB9Z	〃 (short)	1
M53	XYN26+C5	Screw, 2.6×5	1
M54	XTN2+10J	〃 , 2×10	2
M55	PQSE17Y	Reed Switch(S21)	1
M56	PQFD55Z	Bracket	1
M57	PQFS64Z	Spring	1
	INTEGRATED CIRCUITS, TRANSISTORS & DIODES		
IC1	PQVITA7628P	IC	1
IC2,3	PQVIPD4066BC	〃	2
IC4	PQVIVGH6034A	〃	1
IC5,6	AN6562	〃	2
IC7	PQVIMT8870BC	〃	1
IC8	PQVI4045FE56	〃	1
IC9	PQVIPD4069UC	〃	1
IC10	PQVITD62064P	〃	1
IC11	MN1252A	〃	1
Q1-3,22	2SA937	Transistor(Si)	4⚠
Q4-9,14 15,20,21	2SC2021M	〃	10
Q10	2SD1469	〃	1
Q11	DTC144WA	〃	1
Q16	2SC2235	〃	1
Q17	2SD1266	〃	1
Q18	2SB909M	〃	1
Q19	DTA114TA	〃	1
D1,2	PQVDMTZ5R6	Diode(Si)	2⚠
D3,6-11 14-19, 21-32, 35-37, 40,42, 44,46, 49-59	1SS131	〃	43⚠
D4	PQVDVR61B	Varistor	1⚠
D5	PQVD1G4B42	Diode(Si)	1⚠
D12,13	PQVDMTZ5R6	〃	2
D38	MA4033	〃	1
D39	1S2076	〃	1
D41	MA4030	〃	1
D43	PQVDMTZ6R8	〃	1
D45	PQVDMTZ8R2	〃	1
D48	RVD1N4003	〃	1
LED1	LN222RPH	LED	1
LED2	LN229RPH	〃	1
LED3	LN324GPH	〃	1
LED4	LN28RPL	〃	1
ZNR1	PQVDNV430D07	Varistor	1⚠

Ref.No.	Part No.	Part Name and Description	Pcs
		CERAMIC FILTERS	
CF1	PQVCK2726N5Z	Ceramic Filter	1
CF2	PQVFCSB400P	〃	1
CF3	PQVCX3579H5R	〃	1
		SWITCHES	
S1	PQSS2A06Z	Switch, Aux. Leads Control	1⚠
S3,4	PQSR10A03Z	〃 , Remote Code Selector	2
S5	PQSH1A08Z	〃 , Power	1
S6-11, 15	PQSH1A06Y	〃 , Erase,OGM,Memo,2Way, Rewind,F/F etc.	7
S12-14	PQSH1A19Z	〃 , Function,Set etc.	3
S16	PQSS2A16Z	〃 , CPC	1
S17,18	PQSS3A04Z	〃 , Ring Selector, Rec Time Selector	2
RLY1,2	PQSL20Z	〃 , Relay	2⚠
		OTHERS	
LCD1	PQADLC3C201A	LCD	1
JJ1,2	PQJJ1TB13Z	Jack, Tel.	2⚠
JJ3	RJJ97Y	Jack, DC IN	1⚠
PC1	PQVIPC814K	Photo Coupler	1⚠
PC2	PQVIPC817K	〃	1⚠
F1	PQLQZM100K	IC Protector	1
X1	EXBP84472K	Component Combination	1
VR1	PQVAL103A14A	Volume Control,10kΩ(A)	1
T1	PQLT8G6B	Transmission Transformer	1⚠
C64	PQCVTZ20F	Trimmer Capacitor	1
		CABINET PARTS	
K1	PQYMT1426M	Upper Cabinet Assembly	1
K1-1	PQBCX14Z	Button, 2way Rewind, F/F	1
K1-2	PQBCX16Y	〃 , Erase OGM, Memo	1
K1-3	PQBCX15Z	〃 , Function, Set etc.	1
K2	PQYFT1426M	Lower Cabinet Assembly	1
K2-1	RHG1028Z	Rubber, Leg	2
K3	PQYPT1426M	Cassette Lid	1
K4	PQBC94Z	Button, Play Back/Pause	1
K5	PQBC95Z	〃 , Power	1
K6	PQBD58Z	Knob, Volume Control	1
K7	PQHR9147Z	Cassette Lid Ejector	1
K8	PQNW262Z	Stop Ring	1
K9	PQUL41Z	Screwdriver	1
K10	PQUL60Z	Shaft, Cassette Lid	1
K11	PQUS96Z	Spring, Cassette Lid	1
K12	PQUS97Z	〃 , 〃	1
K13	XTW+S16R μ 3	Screw, 3×16	5
		ELECTRICAL PARTS	
E1	PQAS65P06W	Speaker 6.5cm(2.6〃) 8Ω	1
E2	RJM14ZZ	Microphone	1
E3	PQHG921Y	Rubber, Microphone	1
E4	PQUL49Z	Bracket, Microphone	1
E5	PQJP5D39Z.	Connector, 5P	1
E6	PQJP9D39Z	〃 , 9P	1
E7	PQHR9151Z	Bracket, LCD	1
E8	P-01H-F3B6	Rechargeable Battery	1
	XTN26+8C	Screw, 2.6×8 (for Q17 M'tg)	1
E10	XTW3+S10P	〃 , 3×10	14
E11	XTW3+S10PR	〃 , 3×10	5

Ref.No.	Part No.	Part Name and Description	Pcs
		ACCESSORIES	
A1	KX-A07L	AC Adaptor	1⚠
A2	PQJA48Y	Telephone Cord	1
A3	PQJN4Z	Endless Cassette Tape(30sec)	1
		PACKING MATERIALS	
P1	PQPH55Z	Soft Cover	1
P2	PQPN576Z	Pad	1
P3	PQPN577Z	〃	1
P4	XZB28×40A01	Polyethlene Cover(for Unit)	1
P5	PQPK350Y	Gift Box	1
		PRINTED MATERIALS	
Y1	PQQX5263Z	Instruction Book	1
Y2	PQQX1174Z	Dial Card	2

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
		RESISTORS			
R1	ERDS1TJ223	22k⚠	R49	ERD16TJ222	2.2k
R2	PQRD2VJ680	68⚠	R50	ERD10TLJ682	6.8k
R3	ERD16TJ470	47⚠			
R4	ERD16TJ223	22k⚠	R53	ERD10TLJ273	27k
R5	ERD16TJ104	100k⚠	R54	ERD10TLJ103	10k
R6	ERD10TLJ103	10k⚠	R55	ERD10TLJ124	120k
R7	ERD10TLJ472	4.7k	R56	ERD10TLJ104	100k
R8	ERD16TJ103	10k	R57	ERD16TJ103	10k
R9	ERD16TJ103	10k	R58	ERD10TLJ273	27k
R10	ERD16TJ103	10k	R59	ERD16TJ104	100k
R11	ERD10TLJ471	470	R60	ERD10TLJ560	56
R12	ERD10TLJ151	150	R61	ERD10TLJ472	4.7k
R13	ERD10TLJ561	560	R62	ERD16TJ105	1M
R14	ERD10TLJ154	150k	R63	ERD16TJ153	15k
R15	ERD16TJ333	33k	R64	ERD16TJ223	22k
R16	ERD16TJ103	10k	R65	ERD16TJ333	33k
R17	ERD16TJ223	22k	R66	ERD10TLJ333	33k
R18	ERD16TJ822	8.2k			
R19	ERD10TLJ151	150	R68	ERD10TLJ104	100k
R20	ERD16TJ273	27k	R69	ERD16TJ333	33k
R21	ERD10TLJ153	15k			
R22	ERD16TJ823	82k	R77	ERD16TJ472	4.7k
R23	ERD16TJ563	56k	R78	ERD16TJ472	4.7k
R24	ERD16TJ682	6.8k	R79	ERD16TJ563	56k
R25	ERD10TLJ102	1k	R80	ERD16TJ104	100k
R26	ERD16TJ184	180k	R81	ERD16TJ333	33k
R27	ERD10TLJ153	15k	R82	ERD10TLJ105	1M
R28	ERD16TJ473	47k	R83	ERD10TLJ103	10k
R29	ERD16TJ333	33k	R84	ERD10TLJ103	10k
R30	ERD10TLJ681	680	R85	ERD10TLJ823	82k
R31	ERD10TLJ271	270	R86	ERD10TLJ334	330k
R32	ERD16TJ103	10k			
R33	ERD10TLJ473	47k	R88	ERD10TLJ103	10k
R34	ERD16TJ103	10k	R89	ERD10TLJ105	1M
R35	ERD10TLJ334	330k	R90	ERD16TJ104	100k
R36	ERD16TJ271	270	R91	ERD16TJ104	100k
R37	ERD16TJ331	330			
R38	ERD10TLJ224	220k	R94	ERD16TJ104	100k
R39	ERD10TLJ104	100k	R95	ERD16TJ102	1k
R40	ERD10TLJ470	47	R96	ERD10TLJ103	10k
R41	ERD16TJ103	10k	R97	ERD10TLJ103	10k
R42	ERD10TLJ681	680	R98	ERD16TJ103	10k
R43	ERD16TJ273	27k	R99	ERD16TJ103	10k
R44	ERD16TJ273	27k	R100	ERD16TJ103	10k
R45	ERD16TJ100	10	R101	ERD25TJ102	1k
R46	ERD10TLJ103	10k	R102	ERD10TLJ473	47k
R47	ERD10TLJ103	10k	R103	ERD16TJ472	4.7k
R48	ERD16TJ152	1.5k	R104	ERD10TLJ102	1k

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
R105	ERD16TJ472	4.7k	R121	ERD16TJ221	220
R106	PQRQ6AJ101	100	R122	ERD16TJ473	47k
R107	ERD16TJ681	680			
R108	PQRD1VJ391	390	R124	ERD16TJ473	47k
R109	ERD16TJ102	1k	R125	ERD10TLJ103	10k
R110	ERD10TLJ683	68k	R126	ERD10TLJ682	6.8k⚠
R111	ERD10TLJ223	22k	R127	ERD16TJ332	3.3k
R112	ERD16TJ102	1k	R128	ERD16TJ473	47k
R113	ERD16TJ103	10k	R129	ERD16TJ104	100k
R114	ERD25TJ221	220	R130	ERD16TJ473	47k
			R131	ERD10TLJ103	10k
R116	ERD16TJ221	220			
R117	ERD16TJ103	10k	R133	ERD16TJ473	47k
R118	ERD16TJ221	220	R134	ERD16TJ823	82k
			R135	ERD10TLJ103	10k

CAPACITORS

C1	ECQE2474MZ	0.47⚠	C39	ECEA1HUR47	0.47
C2	ECEA1HN010S	1⚠	C40	ECFD1E223MD	0.022
C3	ECEA1EU101	100⚠	C41	ECFD1E223MD	0.022
			C42	PQCBC1C103MY	0.01
			C43	PQCBC1C103MY	0.01
C6	PQCBC1C103MY	0.01	C44	ECEA1AU221	220
C7	ECEA1AU101	100	C45	ECUV1H221JC	220P
C8	PQCBC1C103MY	0.01	C46	PQCBC1H221KB	220P
C9	PQCBC1C103MY	0.01	C47	PQCBX1C103MY	0.01
C10	PQCBC1C103MY	0.01	C48	ECEA1HKS010	1
C11	PQCBC1C103MY	0.01	C49	ECQV1H222JZ	0.0022
C12	ECFD1C104MD	0.1	C50	ECQV1H122JZ	0.0012
C13	ECEA1HKS010	1	C51	ECEA1HKS010	1
C14	ECEA1VU330	33	C52	PQCBC1H681KB	680P
C15	ECFD1E223MD	0.022	C53	ECEA1HU0R1	0.1
C16	ECEA1CKS100	10			
C17	ECUV1H681KB	680P	C55	ECEA1CK101	100
C18	ECEA1HKS010	1	C56	ECEA1HKSR33	0.33
C19	ECUV1H471KB	470P	C57	ECQV1H103JZ	0.01
C20	ECEA1HKS010	1	C58	ECQV1H102JZ	0.001
C21	PQCBC1C332MX	0.0033	C59	ECQV1H103JZ	0.01
C22	ECEA0JK221	220	C60	ECFD1E223MD	0.022
C23	ECEA1EU470	47	C61	ECEA0JU331	330
C24	ECEA1HU220	22	C62	ECEA1AU101	100
C25	ECEB1HK0R1	0.1	C63	PQCBC1C103MY	0.01
C26	ECEA0JU471	470	C65	PQCBC1C200JL	20P
C27	ECEA0JU331	330	C66	ECUV1H200JC	20P
C28	ECEA1AU101	100	C67	ECEA1HU3R3	3.3
C29	PQCBX1C103MY	0.01	C68	ECEA0JU331	330
C30	PQCBC1H681KB	680P	C69	ECEA1AU331	330
C31	ECEA1HU220	22	C70	PQCBX1C103MY	0.01
C32	PQCBX1C103MY	0.01	C71	PQCBX1C103MY	0.01
C33	ECEA1HUR33	0.33	C72	PQCBC1C103MY	0.01
C34	PQCB1C103MY	0.01	C73	ECEA1HKS010	1
C35	ECEB1HK010	1	C74	ECFD1E223MD	0.022
C36	ECEA1HU3R3	3.3	C75	ECKD1H331KB	330P
C37	ECEA1AU101	100	C76	PQCBX1C103MY	0.01⚠
C38	PQCBC1C152MX	0.0015			

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